

Metals in Alaskan Fish

Concentrations in parts/million wet weight

Selenium in Alaskan Marine Fish

Species	Tissue	N	ND	Mean ± Std Dev	Median	Range
Pacific Halibut	Fillet	2076	0	0.39 ± 0.15	0.36	0.070 - 1.9
Pacific Cod	Fillet	151	0	0.24 ± 0.077	0.22	0.10 - 0.53
Sablefish	Fillet	242	1	0.23 ± 0.074	0.21	ND - 0.49
	Whole	5	0	0.41 ± 0.085	0.43	0.29 - 0.50
Walleye Pollock	Fillet	188	3	0.20 ± 0.072	0.21	ND - 0.62
Lingcod	Fillet	230	0	0.39 ± 0.10	0.38	0.17 - 0.88
Kelp Greenling	Fillet	11	0	0.30 ± 0.082	0.30	0.18 - 0.43
	Whole	8	0	0.39 ± 0.037	0.39	0.32 - 0.43
Rock Greenling	Fillet	2	0		0.43	0.31 - 0.55
	Whole	14	0	0.34 ± 0.047	0.34	0.25 - 0.43
Atka Mackerel	Fillet	5	0	0.37 ± 0.054	0.40	0.28 - 0.41
	Whole	4	0	0.58 ± 0.057	0.58	0.51 - 0.65
Rockfish Spp	Fillet	3	0	0.46 ± 0.030	0.45	0.43 - 0.49
Black Rockfish	Fillet	74	0	0.51 ± 0.15	0.49	0.19 - 1.1
	Whole	4	0	0.64 ± 0.26	0.63	0.33 - 0.97
China Rockfish	Fillet	1	0			0.78
Copper Rockfish	Fillet	4	0	0.44 ± 0.050	0.41	0.41 - 0.51
Dusky Rockfish	Fillet	46	0	0.47 ± 0.12	0.45	0.23 - 0.79
	Whole	14	0	0.62 ± 0.14	0.61	0.41 - 0.94
Pacific Ocean Perch	Fillet	78	0	0.50 ± 0.18	0.47	0.25 - 1.0
Quillback Rockfish	Fillet	17	0	0.54 ± 0.11	0.51	0.38 - 0.88
Rougheye Rockfish	Fillet	38	0	0.38 ± 0.094	0.39	0.22 - 0.66
Shortraker Rockfish	Fillet	8	0	0.44 ± 0.067	0.44	0.33 - 0.55
Silvergrey Rockfish	Fillet	8	0	0.47 ± 0.075	0.46	0.38 - 0.58
Tiger Rockfish	Fillet	0				
Yelloweye Rockfish	Fillet	117	0	0.56 ± 0.13	0.53	0.32 - 1.1
Yellowtail Rockfish	Fillet	2	0		0.57	0.54 - 0.60
Red Irish Lord	Fillet	6	0	0.39 ± 0.049	0.41	0.32 - 0.44
	Whole	5	0	0.37 ± 0.039	0.35	0.34 - 0.43
Yellow Irish Lord	Fillet	4	0	0.42 ± 0.10	0.44	0.28 - 0.52
	Whole	8	0	0.45 ± 0.10	0.44	0.34 - 0.62
Great Sculpin	Fillet	1	0			0.42
	Whole	1	0			0.37
Shorthorn Sculpin	Fillet	0				
	Whole	0				
Starry Flounder	Fillet	2	0		0.31	0.27 - 0.34
Butter Sole	Fillet	1	0			0.34
Northern Rock Sole	Fillet	5	0	0.72 ± 0.45	0.53	0.32 - 1.3
	Whole	13	0	0.44 ± 0.19	0.39	0.26 - 0.95
Southern Rock Sole	Fillet	1	0			0.21
Salmon Shark	Fillet	107	0	0.31 ± 0.063	0.30	0.15 - 0.52
Blue Shark	Fillet	1	0			0.23
Pacific Sleeper Shark	Fillet	1	0			0.30
Spotted Spiny Dogfish	Fillet	68	0	0.25 ± 0.13	0.20	0.15 - 0.67
Big Skate	Fillet	92	0	0.32 ± 0.072	0.34	0.063 - 0.45
Longnose Skate	Fillet	94	0	0.33 ± 0.041	0.33	0.24 - 0.44

Selenium in Alaskan Marine Forage Fish

Species	Tissue	N	ND	Mean ± Std Dev	Median	Range
Pacific Herring	Whole*	11	0	0.48 ± 0.14	0.42	0.34 - 0.77
Sand Lance	Whole*	1	0			0.86
Capelin	Whole*	1	0			0.37
Eulachon	Whole*	7	0	0.17 ± 0.023	0.17	0.14 - 0.21
Saffron Cod	Whole	10	0	0.76 ± 0.13	0.73	0.63 - 0.98
Rainbow Smelt	Whole	10	0	0.45 ± 0.077	0.43	0.34 - 0.58

Metals in Alaskan Fish

Concentrations in parts/million wet weight

Selenium in Alaskan Salmon

Species	Tissue	N	ND	Mean ± Std Dev	Median	Range
Chinook Salmon	Fry*	6	0	0.61 ± 0.064	0.63	0.49 - 0.66
	Juvenile*	3	0	0.49 ± 0.046	0.46	0.46 - 0.54
	Fillet	241	0	0.23 ± 0.079	0.22	0.070 - 0.59
	Whole	15	0	0.37 ± 0.088	0.40	0.23 - 0.52
Sockeye Salmon	Eggs	2	0		1.9	1.3 - 2.5
	Fry*	1	0			0.69
	Fillet	246	0	0.23 ± 0.061	0.23	0.090 - 0.46
	Whole	20	0	0.54 ± 0.11	0.54	0.30 - 0.70
Coho Salmon	Eggs	20	0	2.1 ± 0.34	2.1	1.5 - 2.8
	Testes	6	0	0.39 ± 0.039	0.39	0.34 - 0.43
	Fry*	4	0	0.70 ± 0.23	0.69	0.48 - 0.93
	Juvenile*	9	0	0.36 ± 0.023	0.36	0.32 - 0.39
	Fillet	326	2	0.23 ± 0.069	0.24	ND - 0.42
	belly	10	0	0.39 ± 0.077	0.38	0.32 - 0.60
	Whole	76	0	0.42 ± 0.085	0.43	0.29 - 0.69
Chum Salmon	Fillet	290	0	0.26 ± 0.055	0.26	0.090 - 0.43
	Whole	2	0		0.39	0.39 - 0.39
Pink salmon	Fillet	170	0	0.22 ± 0.060	0.22	0.060 - 0.39

Selenium in Alaskan Freshwater Fish

Species	Tissue	N	ND	Mean ± Std Dev	Median	Range
Northern Pike	Fillet	336	12	0.25 ± 0.11	0.24	ND - 0.58
	Whole	40	0	0.37 ± 0.16	0.32	0.21 - 0.94
Rainbow Trout	Fillet	31	3	0.21 ± 0.19	0.15	ND - 0.95
Lake Trout	Fillet	53	0	0.34 ± 0.13	0.30	0.10 - 0.68
	Whole	31	0	0.49 ± 0.087	0.48	0.36 - 0.69
Grayling	Fillet	48	1	0.37 ± 0.31	0.28	ND - 1.5
	Juvenile	0				
Arctic Char	Fillet	13	0	0.20 ± 0.026	0.19	0.15 - 0.25
	Whole	9	0	0.33 ± 0.036	0.33	0.28 - 0.39
Dolly Varden	Fillet	22	0	0.40 ± 0.17	0.41	0.15 - 0.80
Sheefish	Fillet	16	0	0.23 ± 0.043	0.25	0.14 - 0.30
Arctic Cisco	Fillet	21	0	0.36 ± 0.045	0.37	0.31 - 0.48
Least Cisco	Fillet	26	0	0.33 ± 0.083	0.33	0.13 - 0.51
Broad Whitefish	Fillet	34	0	0.39 ± 0.45	0.26	0.19 - 2.3
Humpback Whitefish	Fillet	98	0	0.33 ± 0.27	0.25	0.13 - 2.3
	Whole	24	0	0.40 ± 0.083	0.39	0.25 - 0.54
Round Whitefish	Fillet	12	0	0.95 ± 0.79	0.41	0.28 - 2.4
Burbot	Fillet	27	0	0.38 ± 0.19	0.30	0.14 - 0.88
Longnose Sucker	Fillet	3	0	0.96 ± 0.29	0.79	0.79 - 1.3
Arctic Lamprey	Whole	10	0	0.38 ± 0.041	0.39	0.31 - 0.43

Selenium in Alaskan Marine Invertebrates

Species	Tissue	N	ND	Mean ± Std Dev	Median	Range
Geoduck (clam)	Tissue	0				
	Viscera	0				
	Whole	7	0	1.8 ± 0.41	1.6	1.5 - 2.6
Butter Clam	Viscera	2	0		0.18	0.12 - 0.23
	Whole	0				
Pacific Littleneck Clam	Whole	7	0	0.45 ± 0.23	0.51	0.20 - 0.77
Razor Clam	Whole	2	0		0.53	0.49 - 0.56
Softshell Clam	Fillet	0				
Cockle	Whole	1	0			0.22
Alaskan Gaper Clam	Whole	5	1	0.065 ± 0.030	0.060	ND - 0.11
Arctic Surf Clam	Whole	0				
Pacific Oyster	Whole	16	0	0.55 ± 0.10	0.52	0.44 - 0.80

Metals in Alaskan Fish
Concentrations in parts/million wet weight

Selenium in Alaskan Marine Invertebrates (cont.)

Species	Tissue	N	ND	Mean ± Std Dev	Median	Range
Pacific Blue Mussel	Whole	2	0		0.25	0.24 - 0.25
Weathervane Scallop	Whole	20	0	0.91 ± 0.27	0.86	0.50 - 1.3
Rock Scallop	Whole	0				
King Crab	Tissue	0				
	Viscera	0				
Dungeness Crab	Tissue	6	0	0.61 ± 0.22	0.50	0.44 - 0.91
	Viscera	0				
Tanner Crab	Tissue	0				
	Viscera	0				
Snow Crab	Tissue	0				
	Viscera	0				
Hermit Crab	Whole	1	0			2.8
Krill	Whole	0				
Sidestripe Shrimp	Whole	0				
Spot Shrimp	Whole	0				
Hairy Triton (snail)	Whole	0				
Heros Neptune (snail)	Tissue	0				
Lyre Neptune (snail)	Tissue	0				
	Whole	0				
Pribiloff Neptune (snail)	Tissue	0				
	Whole	0				
Ventricosa Neptune (snail)	Tissue	0				
California Sea Cucumber	Tissue	0				
Octopus	Whole	0				
Squid	Whole*	5	0	0.78 ± 0.076	0.77	0.67 - 0.88